

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-18 (Cancelled).

19. (New) A rotary machine capable of generating a flux of fluid, comprising a rotor bearing a fitting in the form of a crown at least partly made in a flexible material, permeable to fluids, means for driving the rotor into rotation at a variable velocity,
said machine comprising self-cleaning means comprising as a combination:

- control means capable of acting on the aforesaid means for driving the rotor into rotation at a variable velocity so as to generate a sudden change in the rotational velocity of said rotor,
- coupling means between a first face of the fitting and the aforesaid driving means, and
- an annular part borne by a second face of the fitting so that due to the inertia of this annular part, said sudden change in the rotational velocity of said rotor generates a process of torsion and/or compression of the fitting and consequently said self-cleaning of this fitting.

20. (New) The machine according to claim 19, wherein the aforesaid fitting has the form of a crown contained in a cage.

21. (New) The machine according to claim 19, wherein the aforesaid fitting has the form of a crown encircling a cage.

22. (New) The machine according to claim 19, wherein the aforesaid fitting comprises two crowns, respectively contained in the aforesaid cage and encircling the aforesaid cage.

23. (New) The machine according to claim 19, wherein the aforesaid annular part is rotatably mounted with the possibility of axial displacement on the axis for driving the rotor, by means of a bearing.

24. (New) The machine according to claim 23, wherein the axis comprises a helical groove or threading cooperating with a finger or internal screw thread provided in the bearing.

25. (New) The machine according to claim 23, comprising means for subjecting the annular part to vibrations.

26. (New) The machine according to claim 23, comprising it comprises means for braking the annular part.

27. (New) The machine according to claim 19,

wherein the aforesaid fitting is made in a flexible, reticular and/or cellular material with open cells.

28. (New) The machine according to claim 19, wherein the aforesaid fitting is made in a flexible fibrous or microfibrous material of natural origin and/or a metal and/or synthetic and/or antiseptic material.

29. (New) The machine for extracting impurities contained in a gas according to claim 19,

wherein the aforesaid fitting is made in an adsorbing material and in that it further comprises a device for spraying a liquid into the air flux sucked up by the fitting on the one hand and means for collecting the liquid adsorbed by said fitting and ejected under the effect of the centrifugal force on the other hand.

30. (New) The machine according to claim 29, wherein the aforesaid fitting rotates between two parallel flanges and in that the lower flange is provided with a basin into which at least one fluid discharge port opens.

31. (New) The machine according to any of claims 29, wherein said flanges are connected together by a transverse wall which is provided with flutes directed downwards or relief features optionally helical or oblique used for channeling the liquid in a desired direction.

32. (New) The machine according to claim 19, wherein a spring is interposed between both radial faces of the fitting.

33. (New) The machine according to claim 19, wherein the aforesaid fitting has a composite structure comprising two portions more or less permeable or impermeable to the displaced or propelled fluid, so as to direct the fluid into the mass or to increase the collection and/or aeraulic efficiency of the reticular mass or to discharge condensates, liquids or bubbles (in the liquid phase).

34. (New) The machine according to claim 19, wherein the aforesaid fitting comprises superimposed and/or concentric layers of different materials.